CURRICULUM DEVELOPMENT IN MARINE CORPS SCHOOLS

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CURRICULUM DEVELOPMENT IN MARINE CORPS SCHOOLS

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W. T. B.

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CHAPTER I

FORMULATION OF THE PROBLEM

Definition of the Problem

The problem undertaken in this study was: 1) to survey the subject of curriculum development, which implies curriculum revision, in the field of higher education for the purpose of discovering established facts having practical application to curriculum development in Marine Corps Schools; 2) to evaluate the current procedures of curriculum development in Marine Corps Schools with respect to the ascertained facts; and 3) to propose a plan for improving the procedure of curriculum development in Marine Corps Schools, as justified by the evaluation.

Delimitation of the Problem

Marine Corps Schools, Quantico, Virginia, is the principal agency providing for the military education of commissioned officers of the U. S. Marine Corps. Figure 1 illustrates the place of Marine Corps Schools in the officer educational system, and its relation to schools of the other services and to civilian educational institutions to which officers are regularly assigned for training.

Those activities of Marine Corps Schools which are directly concerned with the accomplishment of the academic objectives are collectively designated as the academic organization of Marine Corps Schools. It is this academic organization which falls within the scope of this study.

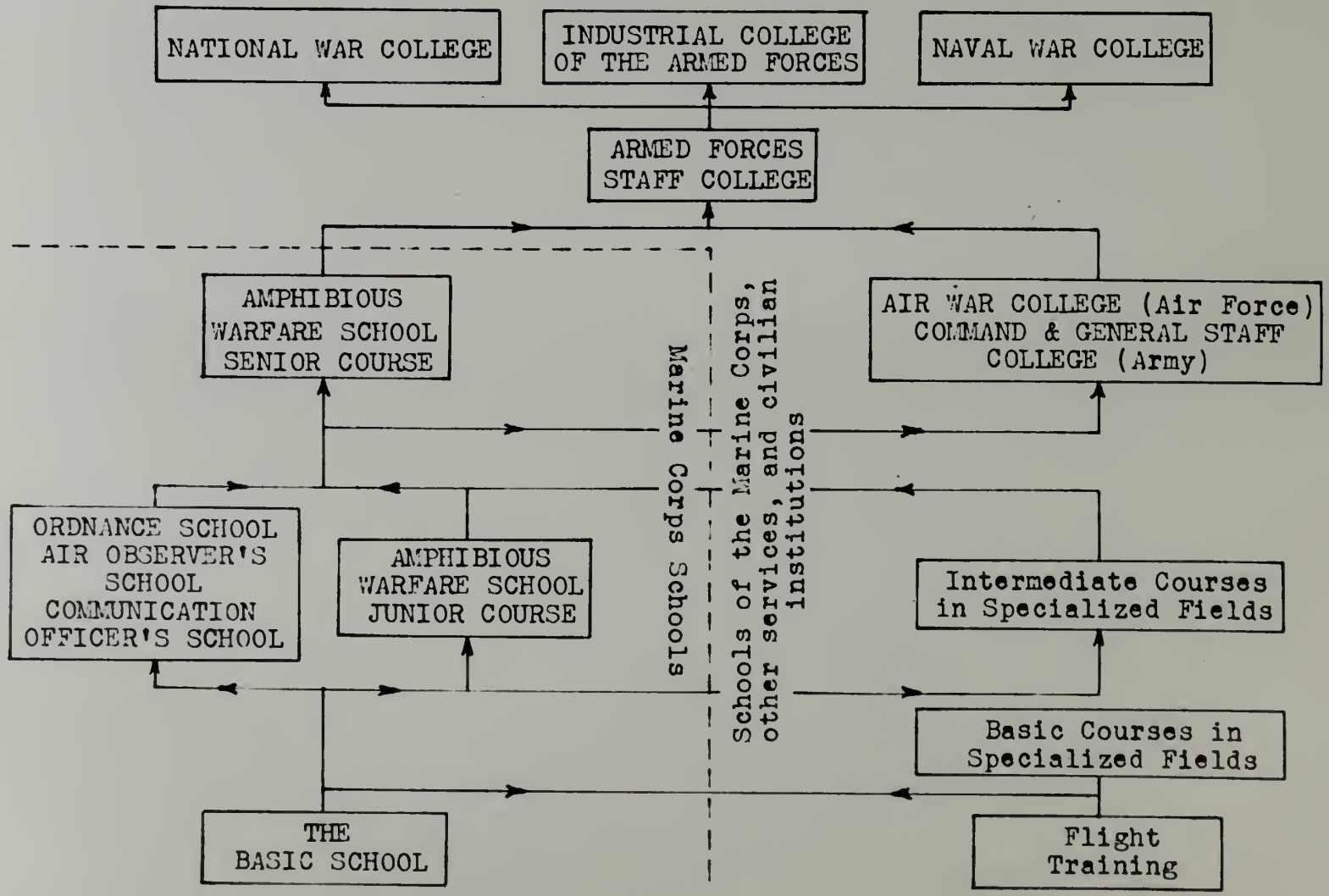


FIGURE 1. OFFICER EDUCATIONAL SYSTEM

It is illustrated in Figure 2. The functions of certain of the component schools and academic special staff sections are prescribed in Appendix A.

Not all the component schools were considered by the study. The study was limited to those schools which are concerned with general military education, viz., The Basic School and the Amphibious Warfare School, Junior and Senior Courses[1]. Current procedures in curriculum development in Marine Corps Schools have been designed to meet primarily the needs of these general service schools, as they occupy the positions of paramount importance in the overall educational system, and they constitute the bulk of the academic activities at the Schools. The Extension Division, dealing with non-resident instruction, particularly of the civilian component of the Marine Corps, was considered to represent an area sufficient for separate study.

Officers assigned to The Basic School, the initial step in the officer educational system, are Naval Academy or civilian college graduates, or former enlisted men who are college graduates or have been evaluated and found to have attained scholastic background equivalent to a college graduate. Therefore, from the standpoint of position in an educational hierarchy, the schools considered are graduate professional schools.

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1. Throughout the remainder of this study, it is only The Basic School and the Amphibious Warfare School which are denoted by the term "Marine Corps Schools". Such schools as the Communication Officer's School will fall within the category of schools of the Marine Corps, other than Marine Corps Schools.

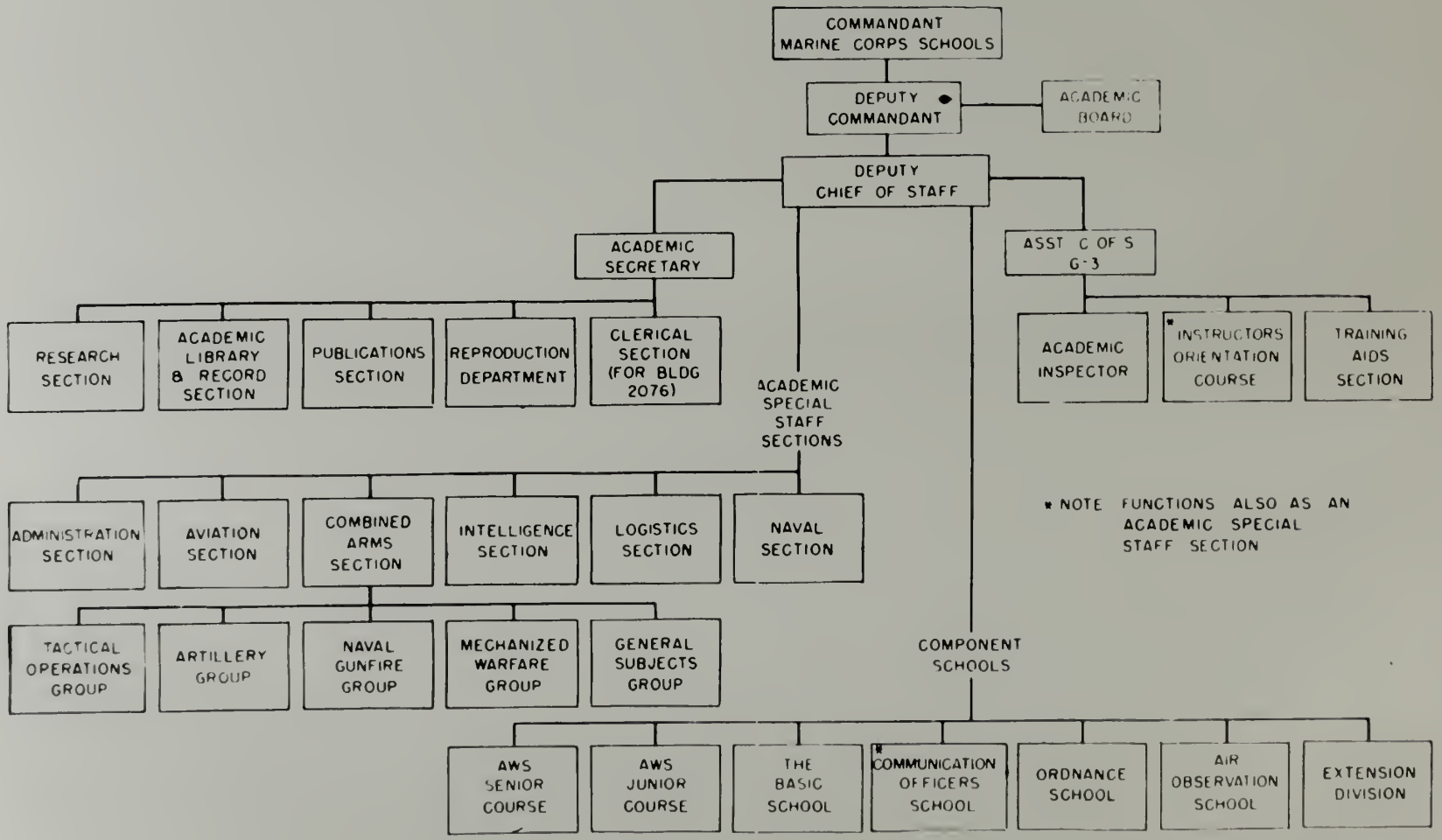


FIGURE 2. ACADEMIC ORGANIZATION, MARINE CORPS SCHOOLS

It was found to be generally accepted that a curriculum consists of more than just the courses of study, or content, to be covered. However, time available to complete this study precluded the consideration of other than this one major aspect of the curriculum.

Since the primary concern of this study was to improve the procedure of curriculum development in Marine Corps Schools, the context of this study has been limited mainly to pointing out areas in which it was felt the procedure might be improved. As a result, many of the excellent aspects of the operation of the Schools have not been adequately described. They have been mentioned specifically only when it was desirable to do so to make the study more meaningful, or as useful illustrations, or to counteract a possible wrong impression of the quality of the overall program.

Need for the Study

Innumerable indications that officers completing the courses at Marine Corps Schools fell short of a minimally acceptable standard of proficiency in matters pertaining to human relations and the routine, day-to-day administration and management of activities at all levels of command were the initial clues to the need for this study. Problems in these fields had been incorrectly handled either because the parties concerned were ignorant of the skills or knowledges or attitudes upon which a proper solution should have been based, or they were unaware of the existence of the problem, being incompetent to recognize it. A perusal of the Schools' syllabi of instruction revealed little if any instruction

in these fields of concern, and, what appeared to be, unwarranted instruction in others.

The fact that the curriculum seemed inadequate and unbalanced, of itself, was suggestive of faulty curriculum development procedure. Further preliminary study revealed that: 1) no standard procedure for curriculum development in Marine Corps educational activities existed; 2) curricula content were determined subjectively; and 3) there had never been a survey made of the procedure of curriculum development in the Marine Corps by persons with psycho-educational training. It was therefore considered that a study of the matter was justified.

Method of Solution

In general, the method employed in solving the problem was the normative-survey method, utilizing a combination of documentary frequency and survey-appraisal techniques.

As was previously indicated, as a need for this study, the Marine Corps has never made a scientific study of the matter of curriculum development, nor has it evolved a standard procedure. Therefore, a survey of previous related studies to establish the criteria with which to evaluate present conditions and procedures at Marine Corps Schools was impossible. It was necessary, then, that the data collected include, in addition to a survey of the situation at Marine Corps Schools, those practices in the field of education which were applicable to curriculum development in Marine Corps Schools, to serve as the evaluative criteria.

The solution to the problem was effected in the following sequence,

each step being treated in succession by the subsequent chapters:

As a first step, a comprehensive survey was made of documents relating to curriculum development in the field of education for the purpose of discovering facts having practical application to curriculum development in Marine Corps Schools; i.e., to establish evaluative criteria.

As a second step, using the evaluative criteria as a frame of reference, those specific aspects of curriculum development in Marine Corps Schools to be evaluated were formulated.

As a third step, a survey was made of Marine Corps Schools' material relating to present conditions and procedures of curriculum development from the general point of view of the specific aspects to be evaluated.

As a fourth step, the procedure of curriculum development in Marine Corps Schools was evaluated and constructively criticized, and those factors which would contribute to an improved procedure were isolated.

As a last step, a systematic procedure for curriculum development in Marine Corps Schools was proposed.

CHAPTER II

FORMULATION OF EVALUATIVE CRITERIA

Introduction

In general, the survey of educational literature for the purpose of discovering facts having practical application to curriculum development in Marine Corps Schools revealed little, if anything, having direct application to the field of higher education, let alone the graduate level. In comparison with the number of sources concerned with the procedure of curriculum development in elementary and secondary schools, it may be stated that, except for some literature indicating the aims and general subject content of curricula in teacher and general colleges, material might be considered as being nonexistent. Consequently, in the absence of sources specifically designed to treat the problem of curriculum development on the level being considered by this study, it was necessary to determine those aspects of curriculum development considered to be common to all educational systems, plus any especially applicable to the level being considered, from all available sources. These were analyzed separately from the context of this study, and only those considered as being possible of practical application by the Schools were used. Such factors as the negligible affect of individual differences and a unified interest among the students resulted in somewhat of a departure from conventional educational practices.

It was discovered that the development of curriculum content could not be accomplished independently of other considerations, the

importance of which makes it obligatory that they be treated in some detail, and in advance of the determination of the organization of the content, per se. These considerations pertained to the setting in which curriculum development takes place, to fundamental educational principles, and to the aims and objectives of the cirriculum - all of which control the development of the content.

Basic Considerations[1, 2, 3]

To insure a proper understanding of the setting in which curriculum development takes place, several preliminary points must be considered. They are 1) the relation of an educational system to the society which maintains it, and 2) the relation of a curriculum to the conditions of a society.

It is universally accepted that an educational system bears a direct relationship to the type of society which maintains it. The type of society is viewed primarily from the standpoint of its status - static or dynamic.

A static society is one in which the conditions of behavior remain generally stable; changes are very gradual. The limits of behavior of the individual are mapped out by the customs of the group, and are accepted without thought or challenge. Education in a static society

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1. L. T. Hopkins, Curriculum Development, pp. 1-31.
2. H. L. Caswell and D. S. Campbell, Curriculum Development, pp. 21-33.
3. I. J. Quillen and L. S. Hanna, Education for Social Competence, pp. 18-20.

consists of transmitting to each new member certain facts and ways of acting in relation to customary experiences. It considers the maintenance of the status quo as the aim of education. These conditions of education are sufficient until a crisis of one type or another affects the static situation; then, when the outcomes of the system cannot effectively cope with new conditions, the system breaks down.

A dynamic society is the opposite of a static society. It is one in which the conditions of behavior change rapidly. Instead of being submerged by the group, as in the case of the static society, each individual now plays an important part in the organization and direction of group behavior. Education in customary experiences alone cannot enable individuals to cope successfully with new conditions. Education must also give an individual instruction in how to make intelligent adjustments to the ever-increasing body of activities for which there are no customs, those practices or conventions that regulate life in a society. The individual must meet the new and unforeseen problems of life in an open-minded and intelligent way. He must solve these problems by critical and reflective thinking. Quillen and Hanna[1] define these processes of thinking as:

> Critical thinking involves the accurate interpretation of data, the use of logical arguments, the recognition of fallacies and sophistries in the arguments of others, the drawing of sound generalizations, and the application of accepted principles to new situations.

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1. Ibid., pp. 141, 127-128.

> Reflective thinking is the scientific method of problem solving. It consists first of all of being able to recognise and define the problem; it must be so stated as to be meaningful. The definition of the problem is followed by an attempt to analyze it into essential factors so that suitable hypotheses (proposals of courses of action) concerning its solution may be formed. The collection, evaluation, organization, and interpretation of data which will verify or refute the hypotheses which have been proposed is the next step. Having examined all the facts pertaining to the problem, the next step is to examine the consequences of each course of action and conclude which is the most acceptable course of action. Finally, after a decision has been made, it is necessary to verify the conclusion by applying it through action directly to the problem in so far as practicable. [Students of military science will recognise the step-by-step similarity between the reflective thinking process and the military estimate of the situation.]

The results of such individual thinking, when accepted by those in authority, become the body of customs which the group transmits to new members, or, in modern times, become the regulations which direct behavior in the present. Education, then, in a dynamic society must insure the integrity of the social order by perpetuating and transmitting a body of customs, and by training individuals to meet and solve the new problems of life.

Life, however, is a complex of human interrelationships. Activities in which the consequences of an individual's actions do not influence in vital ways other persons are extremely rare. Therefore, in any real life situation, the human element is an essential, if not the essential, part of it, and the manner in which the outcome of the situation is conditioned by the presence of the human element must be considered in every case.

Another way of arriving at the fundamental social foundation of life, i.e., of, or pertaining to, human relations, is to reflect a moment upon the consideration that the underlying forces in change are

social forces - men in action. The social heritage is the consequence of human experience.

Education, then, should align itself with social progress, with its central theme the improvement of human relations. This proposition, however, cannot be accepted unless one also admits that the locus of life's major problems is human relatedness; i.e., these problems are social problems. From among many examples of social problems that might be used to prove this point, one, having particular meaning to military personnel, is that, out of every eight men examined, one was rejected by the draft boards during World War II for mental illness, and in spite of careful screening approximately 20% of the casualties were psychiatric cases. The principal cause of this condition was social maladjustment[1]. Inability of people to grapple successfully with the social problems that face them, indicates fundamental inadequacies in the work of educative and regulatory agencies. The alternative to cumulative maladjustment is for these agencies to take a more aggressive and intelligent part in dealing with social problems.

When the concept of a dynamic society is considered, it must be recognized that change is necessarily in some direction. Every society has a code of ideals (or values) which the society attempts to achieve, thus giving uniform direction to change. Since the status of a society is the product of human effort, the code must embody a human frame of

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1. BrigGen W. C. Menninger, Time, Vol. LI (May 17, 1948), p. 55.

reference. In the United States, there is universal agreement that change should be in the direction of a fuller realization of democratic values. Democratic values manifest themselves in the control of individual and group behavior in real life situations. These values may be summarized as: 1) a respect for the dignity of the individual; 2) the willingness and ability to participate cooperatively in the promotion of common concerns and in the solution of common problems; 3) the willingness and ability to use intelligence and reason rather than emotion in the solution of common problems; and 4) a belief that through mutual respect, cooperative action, and the use of intelligence, man can achieve a condition of high morale and hope for the future[1].

A curriculum of an educational system maintained by a dynamic society represents the balanced selection and organization of a body of the common and specialized experiences of behavior which will lead students to develop those skills, knowledges, and attitudes which are necessary to maintain the existing level of achievement and to direct the future development of the society. The specialized experiences are those based upon trends and frontier thinking which are necessary for the development of the individual to the point of greatest efficiency in order to direct social development. The content should be very broad in scope, rich in meaning or possibilities of interpretation, and socially oriented. The instructional organization should be that which leads the individual to think independently through the series of learn-

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1. Quillen and Hanna, op. cit., p. 21.

ing experiences which constitutes the curriculum, in order that he may be trained for accurate and independent thinking in those experiences of life not selected for study. The outcomes of such a curriculum should include some professional skills and knowledges, but, and what is more important, they should also comprise an open-minded attitude toward the ever-increasing changes in life and an intelligent understanding of how future problems should be solved.

Educational Principles[1, 2, 3, 4]

The relationships assumed to exist between the various elements of an enterprise must be compatible if a consistent program is to be developed. Lacking such compatibility the action in developing the program frequently becomes diffuse and contradictory. It is common practice in a program of curriculum development to provide for consistency by an introductory statement of educational principles. These principles stem from basic fields of study, as philosophy, sociology, and psychology. The philosophical and sociological principles, in turn, stem from the basic considerations discussed above.

Educational principles, applicable to curriculum development

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1. Hopkins, op. cit., pp. 11-14.
2. Caswell and Campbell, op. cit., pp. 83-110.
3. H. Harap, The Technique of Curriculum Making, pp. 13-15.
4. J. H. Fox, C. E. Bish, and R. W. Ruffner, School Administration, Principles and Procedures, pp. 21-41, New York: Prentice-Hall, Inc., 1940.

as delimited by this study, are:

1. Human life, however varied, consists of the performance of specific activities. Education that prepares for life is one that prepares definitely and adequately for these activities. Analysis of these activities reveals those particular skills, knowledges, and attitudes that men need. These will be the objectives of the curriculum. The curriculum then will be essentially composed of that series of learning experiences which students must have by way of attaining those objectives.

2. The most acceptable idea underlying educational purposes is the development of the individual so that he will behave as effectively as possible in the social groups of which he is or may become a member. Behaving effectively in this connection is to be interpreted as behaving in such a way that he will make the greatest possible contribution to society and at the same time receive the greatest possible personal satisfaction.

3. The learning process has associated with it certain principles which condition its effectiveness, such as:

a. Learning comes only with an understanding of the material to be learned.

b. Understanding comes best when the learner is active and responding (doing).

c. Without motivation (interest) there is no learning.

d. When the material which is to be learned is divorced from the consciousness of usefulness, it is extremely difficult to

motivate.

e. Practice makes perfect only when it is correct practice based upon understanding of the stimulus, and with motivation present - repetition alone is not enough.

f. There has to be a reward for learning to be effective, and personal satisfaction from proper accomplishment of a task is sufficient reward.

g. The application of knowledge is more difficult than its acquisition.

h. The degree of transfer of learning between dissimilar actions, even in similar situations, is low.

These learning principles have repercussions in the organization of curricula. Some of the more general effects are:

1. Curriculum content should be related to, and grow out of, the student's background of knowledge of its subject matter.

2. Curriculum content should be presented to the student so that he can see in advance the relationships between successive courses of study, and defines clearly for him the purposes of the learning process he is to undertake.

3. Learning experiences should be presented to the student in the form of activities in which the student can actively assume the role he would play if they were real life situations, if his learning is to have maximal functional value.

Experience in education circles has found that it is necessary to revise statements of principles constantly as insight deepens

and inconsistencies arise which have not been anticipated.

Aims and Objectives[1, 2, 3, 4, 5]

The nature of curricular aims and objectives is universally conceived of in the field of education, as in any planned or conscious activity, as being descriptive of the end (goal) or condition (outcome) to be achieved. A great variation exists, however, in the meanings and use of the terms "aims" and "objectives". All of the distinctions are based upon the relationship of aims or objectives on one level of analysis to those on other levels. In this study, the term "aim" will apply to the educational system level, and the term "objective" to other levels.

A curriculum is completely dominated by the predetermined aim of education. The function of aim is not only to delimit and guide the educational process; it also serves as the ultimate criterion for the selection of curriculum content. The heritage of the society is so massive that it can never be completely assimilated through the educational (school) system. Therefore, selection is necessary, and the basis for selection is determined through the statement of aim.

The function of an objective is to prescribe the specific

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1. Hopkins, op. cit., pp. 36-123.
2. Caswell and Campbell, op. cit., pp. 112-140.
3. Quillen and Hanna, op. cit., pp. 46-68.
4. Harap, op. cit., pp. 26-30.
5. W. W. Charters, Curriculum Construction, pp. 5-11, 41-55.

goals, useful in life, to be achieved by education. An objective is what a student should be able to do, to know, or to be as a result of the learning. It serves as a further guide in the selection of content.

According to Hopkins[1], however, in any program of curriculum development the aim of education may be set up at the beginning or it may be postponed until the end. If the aim of education is determined first, the analytic-deductive method of procedure is followed. If it is determined last, the synthetic-inductive method of procedure will be followed. Under the former, the objectives of the courses of study and the learning experiences, and their content, are derived from an analysis of the component elements involved in the logically derived statement of aim of education. Under the latter method, the content of the courses of study is first selected and organized. It is then examined to determine what objectives and aim of education grows out of it, or towards what aim of education it can be directed.

Arguments presented by Hopkins[2] for each of the methods are:

1. The analytic-deductive method presents a standard by which to evaluate existing objectives and content to determine whether they should be retained or rejected. It offers a standard by which to evaluate new materials which are being considered for admission to the curriculum. It is the most economical method. Agencies working on

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1. Hopkins, op. cit., pp. 73-78.

2. Ibid., p. 74.

separate areas of the curriculum being guided by integrated aims and objectives, and an allotment of time, develop results requiring a minimum of final revision.

2. The synthetic-inductive method assumes that materials must be selected before anyone can tell what to do with them.

Both methods have merit, and as Hopkins[1] further indicates, no curriculum is developed except by a combination of the two methods. The preference for one or the other as the beginning method rests upon several criteria which need not be mentioned here. However, analysis of these criteria indicates that the most useful, and the best organized, curricula result from beginning with the analytic-deductive method. Curriculum development, then, beginning with this method is accomplished by stating at the outset, first, a tentative aim of education; second, the tentative program of courses of study, including the time allotted to each course; and third, a tentative set of objectives indicating what each course of study is expected to contribute toward the end of education.

The statement of a tentative aim of education is accomplished through a critical analysis of the basic considerations which determine the ends which an educational system maintained by a particular society should serve, during the process taking appropriate cues from the stated educational principles. In general, the aim must denote that its purpose is to develop modes of behavior that realize desired

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1. Ibid., p. 77.

and desirable ends in life.

The tentative program of courses of study, or major branches or phases of the curriculum, can be logically derived by professional introspection of the field of study, guided by the statement of aim. (The relationship desired among courses of study will be treated in the following section.) On the basis of the relative importance of each of these courses of study, the total instructional time may be allotted among them.

Objectives, whether stated tentatively or in their final form, should follow certain guiding principles. These principles, according to Quillen and Hanna[1], are: 1) objectives should agree with the aim of education; 2) objectives should be stated functionally, and in terms of changes in student behavior that it is expected that the educational process will produce; 3) objectives need to be organized into an overall meaningful pattern; and 4) objectives must be specific enough to define with some exactness the scope of the course of study, or the learning experiences, which are designed to achieve it.

As the detailed content is obtained by various analytical methods and evaluated, definite scope of courses of study, definite objectives, and a definite aim of education evolves.

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1. Quillen and Hanna, op. cit., pp. 50-55.

Analytical Methods[1, 2, 3]

Curriculum content is determined by a logical combination of several analytical methods. The chief methods are: 1) direct analysis of the activities to be engaged in by school outcomes; 2) direct analysis of the needs of the student; 3) secondary analysis of the needs of the student; 4) analysis of curricula content in similar educational systems; and 5) analysis of the needs of the student in the opinion of competent persons.

The first method, to determine what people do, is accomplished by conventional job analysis methods. The second method, to determine what people should do, involves the collection of observed errors or deficiencies in the performance of duties. The third method involves the research of various documentary sources to determine trends and frontier thinking as to the best manner of performing the duties. The other methods are self-explanatory.

The determination of curriculum content only by means of the first method, which is the basic approach, has two shortcomings associated with it: 1) it results in knowledge of the status quo only; and 2) it presumes that the job is being performed as efficiently as possible, and is not limited by the knowledge and standards of job incumbents.

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1. Harap, op. cit., pp. 37-108.
2. Charters, op. cit., pp. 34-40.
3. Charters, Lemon, and Monell, op. cit., pp. 345-350.

The central aim in analytical methods is to reduce individual opinions and concensus to a minimum. Theoretically, it is possible to construct a curriculum so objectively that personal opinion disappears, but the strict absence of opinion in the construction of large curriculum of the type under consideration is impractical. The method of reducing expert opinion is positive and consists of discovering as many objective sources as possible, and using these to their full extent with the idea of depending upon expert opinion only when these do not yield complete information.

Scope and Sequence[1, 2, 3, 4]

The scope of the curriculum defines the breadth of the curriculum. It is the "what", in contrast to the sequence which is the "when". It comprises those activities which are persistent and common, proficiency in which contributes to mastery of the goals stated in the objectives.

The common bases for the selection of content, other than the statements of (tentative) aim and objectives, are 1) frequency of occurrence, 2) difficulty of learning, 3) suitability of learning on-the-job, and 4) importance of knowing. Other things being equal, those activities which are most frequently performed should be mas-

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1. Harap, op. cit., pp. 111-146.
2. Charters, op. cit., pp. 63-73, 94-100.
3. Charters, Lemon, and Monell, op. cit., pp. 350-358.
4. Quillen and Hanna, op. cit., pp. 70-93.

tered at the expense of less frequent items if a choice has to be made between them. That material which is more difficult to learn needs attention in preference to material easier of learning when a selection is to be made. Those skills and knowledges which can best be learned on-the-job may safely be omitted from the curriculum. In fact some of the most frequent duties can often be most profitably learned on the job. The importance of knowing is of significance in selection because no matter how frequently an activity occurs its effect may be so potent when it does occur that knowledge of it is essential.

When a high level of proficiency in a particular activity has already been attained, the existence of this condition should unconditionally relegate the activity to a position of lowest importance.

In practice, material collected by the several analytical methods may be listed in order of frequency of occurrence. The resulting list may then be modified as to order and length by the application of the other bases for evaluating importance.

Sequence indicates the order in which the content is studied. Several principles for determining sequence are 1) proceed from the simple to the complex, 2) proceed from the immediate to the more remote, and 3) proceed according to a logical analysis of the subject field.

In addition to the problem of determining sequence within any particular school unit, sequence must provide for coordination and continuity between successive units of the school system.

Organization of Courses of Study[1, 2, 3]

The overall organization of the curriculum is usually defined in terms of the pattern of organization of the principal subdivisions of curriculum content, viz., the courses of study. Two classifications of patterns are generally recognized. They will be referred to in this study as the structural and functional patterns of organization.

The structural organization of courses of study (a structural curriculum) is one in which the content is logically organized within traditional subject fields, in a manner typical of academic college subjects. Application of learning is limited to discrete parts of activities. The content can be applied as it is learned, but only to a specific part of an activity and unrelated to a complete functional sequence. Where experienced students have an adequate background of skills, knowledges, and attitudes, however, the approach by logical sequence may result in efficient and functional learning; i.e., the structural organization might produce functional results. At the end of the structural learning the student can engage in applicatory exercises.

A functional course of study is one in which the student's learning is focused on the use and application of subject matter in

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1. Charters, op. cit., pp. 83-84.
2. Caswell and Campbell, op. cit., pp. 448-464.
3. Quillen and Hanna, op. cit., pp. 94-106.

a sequence of related and practical experiences. It cuts across subject boundaries and draws upon all fields for the solution of problems in the learning experiences. Although the student masters some subject matter content in a specific learning experience, he must also be able to generalize his knowledge, and apply the principles and techniques to a large body of other related experiences. It would therefore be desirable, if a functional approach is used, to conclude each course of study with a brief review intended to give the student a comprehensive understanding of any segment of the subject matter in logical sequence.

The important thing from the standpoint of the overall organization of the functional curriculum is the frame of reference, the related sequence of courses of study. Whereas the internal organization of the separate courses of study is functional, the curriculum as a whole is often not arranged functionally. This situation requires a reorientation at the beginning of each course of study to insure a continuance of a functional type of learning.

It is apparent from a consideration of the educational principles listed above that the functional pattern of organization is the safer one. The student is enabled to see at the start the entire panorama of the curriculum, the purposes and direction of the learning. This means that from the start he is equipped with a meaningful frame of reference into which he can fit each item as he learns it, and by means of which he can more readily see what further learning is needed.

In those parts of the curriculum where the purpose of a given aspect of learning and the procedure by which it is to be achieved

would be clearly understood by the students, a combination of the structural and functional approaches would probably be more effective than either one used alone.

Organization of Units[1, 2, 3, 4]

The basic element in the organization of significant learning experiences of courses of study is termed the unit. The unit is a learning experience in which the student engages in order to attain a specific skill or knowledge or attitude. It is complete in itself, capable of being understood without relation to other units. Its purpose is to facilitate the learning process by giving order and synthesis to subject matter in order that it can be better understood. It is a continuance of the functional organization of the curriculum.

There are two general approaches to unit organization, viz., topical and problems. When the topical approach is used, the learning experiences are centered around phases of the heritage of the society or social processes, as "military transportation" or "recruiting". In the problems approach, the learning experiences are centered around problems to which there are no ready-made solutions. They involve the choice of a course of action from among two or more possible

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1. Harap, op. cit., pp. 151-207.
2. Charters, op. cit., pp. 137-146.
3. Caswell and Campbell, op. cit., pp. 226-247, 400-446.
4. Quillen and Hanna, op. cit., pp. 107-140.

solutions. The process of reflective thinking is the means by which the problem solutions are reached. (A third approach, the chronological approach, involves the organization of the learning experiences around historical events. The curricula under consideration involve little military history.)

Studies made to determine the comparative values of the topical and problems approaches reveal that students in the groups using the latter approach, where applicable, demonstrated superior ability in critical thinking and research techniques, a broader knowledge and understanding of material covered, and a more liberal, consistent, and certain points of view[1].

The unit may include work for one period (usually an hour), for several periods, or even for several weeks. Assuming the objectives for the longer units do not become too indefinite, there is no essential difference between the preparation of short and long units. The unit of one period precludes the concept of a "lesson" as an element of curriculum content.

Administrative Considerations[2, 3]

In a curriculum development program, a type of organization is developed which will function as a regular part of the school sys-

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1. Ibid., pp. 156-170.
2. Hopkins, op. cit., pp. 339-611.
3. Caswell and Campbell, op. cit., pp. 466-501.

tem, using the existing administrative organization as far as possible. This organization has no functions other than those pertaining to curriculum development. These specialized functions entail preparing materials for the guidance of the various phases of the program, determining the aims of the program, defining educational principles, appraising and reorganizing the materials in courses of study, and preparing the outlines of units. Sound principles of general administration must be applied to this organization at all times; the line of authority must be clear, responsibility must be fixed, duties must be defined, and the usual administrative relationships observed.

Since the content of the curriculum is to be functionally arranged in so far as possible, in accordance with the criteria heretofore presented, the committee type of organization, including representatives of the various fields of subject matter, should be employed. These representatives should consist of the most capable and the most industrious persons who can do the job. They should include persons with teaching experience who can think in terms of classroom activities. The chairman of the group should be a good administrator and have some knowledge of the procedures of curriculum development.

The teachers work with the committee representatives on the organization of content, particularly the units which they will present. The teachers must be highly proficient in all aspects of their special field of study and excel in the platform presentation of the subject.

A major point of emphasis is the time required to prepare and

inaugurate a new curriculum. Studies of various educational systems reveal that one to three years of rather intensive activity is required.

Influences apart from change have been potent in affecting the procedure of curriculum development. Development of curricula which contribute more significantly to the achievement of professional competence should require full recognition of these influences and the ways in which they operate. Consequently, consideration is given to two common influences that have conditioned and continue to condition development of curricula. They are 1) the influence of vested interests, and 2) the influence of logically organized subject matter[1]. The influence of vested interests is operative through control of school administration and through control of teaching personnel. Vested interests can cause schools to be indifferent to the real vital issues, or else deal with them in such a way as to present specific solutions dictated by a particular group. Logically organized subject matter is material in the form presented in standard textbooks. The influence of such matter is to cause it to be habitually viewed in its traditional sense; new viewpoints are difficult to introduce. It, of itself, is not invalid. Consequently, it is not affected by the program of revision, though it may no longer be appropriate.

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1. Ibid., pp. 38-56.

CHAPTER III

SPECIFICS TO BE EVALUATED

Based upon the evaluative criteria obtained from educational literature, those specific aspects of the procedure of curriculum development in Marine Corps Schools that were considered to be significant for evaluation are:

1. Is the educational system in harmony with the type of society which maintains it? Is it conceived of as an agency to ensure progress? If so, is the curriculum designed for the purpose of developing contributing outcomes?

2. Are educational principles, to serve as criteria at points of issue, formally stated? Are content and those aspects of the educational program which are closely related thereto in harmony with these principles?

3. Is the aim of education stated? Are the criteria for its concept stated? Is depth of research reflected in its context?

4. Are the objectives of each school in the educational system stated? Are they in agreement with the aim of education? Are the objectives of the courses of study stated? Are the objectives, of themselves, properly stated?

5. Are objective methods used in the determination of content? Is there sufficient content to achieve each of the objectives? Is there content which has no relation to the objectives? Is the amount of content proportional to the relative value of the objectives?

6. Is the arrangement and composition of the courses of study such as to provide a logical frame of reference for all tasks in the learning process, or does each task appear as an isolated entity? Are the courses of study organized structurally or functionally?

7. Are learning experiences based on real life situations? Are they concerned with common and persistent problems? Have the problems social significance?

8. Is there a permanent organization for curriculum development? Is the procedure of curriculum development unbiased?

CHAPTER IV

CURRENT PROCEDURE OF CURRICULUM DEVELOPMENT IN MARINE CORPS SCHOOLS

Definition of Terms

The definitions which follow are intended to make Marine Corps Schools' terminology meaningful to those unacquainted with it.

Syllabus - A compendium, in terms of logically arranged subject matter, delimiting the scope of a course. Appendix C illustrates the format of a typical syllabus.

Schedule of Instruction - An hour-by-hour schedule of periods of instruction. Appendix D illustrates the format of a typical schedule of instruction.

Course - The complete series of study and instruction given to a class of students over the entire school term. In educational terms, this is the "curriculum".

Mission - The academic objective of a course. In educational terms, this is a "general objective".

Subcourse - An arbitrary subdivision of a course, usually relating to a specific field of military learning, organized for progressive study and instruction and given for the purpose of accomplishing one or more intermediate phases or objectives embodied in the course mission. A subcourse normally embraces a number of related subjects, but may occasionally be limited to one subject or may embrace

a number of miscellaneous subjects. In educational terms, this is a "course of study".

Subject - A collection of related material forming a part of a subcourse. As an example, "voice radio procedure" is a subject in the subcourse "signal communications".

Lesson - A logical subdivision of a subject. It is treated by a student and instructor as a single task, and may extend in length from an hour to a day, or, in exceptional cases, to a longer period. As an example, "voice radio procedure" may consist of two lessons, one a study of the techniques involved, the other a study of its use in practical situations, each of two hours duration.

Period of Instruction - A unit of instruction to which an instructional reference number has been assigned. It represents a continuous session. It may embrace an entire subject, a group of lessons within a subject, or an individual lesson. As an example, the instruction in "voice radio procedure" may be contained in two periods, one a two-hour, continuous lecture-demonstration, the other a two-hour, continuous applicatory exercise. In educational terms, this is a "unit".

Purpose - The academic objective of a subcourse or a period of instruction. In educational terms, this is a "specific objective".

Agencies Involved and Their Functions

The Commandant of the Marine Corps[1] prescribes the aim of the

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1. Marine Corps Manual, Vol. I, p. 24-5, Washington, D. C.: Government Printing Office, 1949.

officer educational system as:

> The purpose of the various schools and courses established for commissioned personnel is to assure a corps of officers proficient to the highest degree in those professional duties of staff and command necessary to carry out the missions of the Marine Corps[1]. To this end, it is intended that each junior officer shall be basically trained as an infantry leader and that thereafter his schooling shall be primarily to meet the requirements of the ground and air components of the fleet marine force.

A need for revision of the statement of aim based on a pre-World War II concept of the purpose of the officer educational system resulted in its restatement in 1946 as above. The restatement was logically conceived. No criteria, other than the judgment of the revisors, served as the basis of the restatement.

Because the aim is implemented by assigning officers to duty under instruction at not only Marine Corps Schools, but other schools conducted by the Marine Corps, other services, and civilian educational institutions, it is necessary to prescribe the specific portion of the aim that will be realized by each of them. Consequently, the Commandant of the Marine Corps has prescribed the general academic objectives, or "missions", of Marine Corps Schools and component schools.

A search of official records at Headquarters, U. S. Marine Corps, and Marine Corps Schools, revealed only the most recent directive concerning academic objectives. Other such directives seem to have existed, but there is no record of them available. The current directive was prepared after Marine Corps Schools requested an official statement

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1. The missions of the Marine Corps are listed in Appendix E.

of academic objectives, their absence being realized through routine administrative processes. The current directive, Appendix B, is an operational expression of the curricula in effect at the time of its promulgation.

Within Marine Corps Schools, the development of the curricular objectives and content is primarily the responsibility of the director (or commanding officer) of each component school. He is responsible for the preparation of the syllabus and the schedule of instruction.

Syllabi are revised annually; i.e., for each class. Currently, each class is of approximately nine months duration. Each syllabus, or curriculum, stems from its predecessor. In a conference convened several months prior to the starting of a particular class, a school director and all academic special staff sections and schools concerned constructively criticize the material in the current syllabus, as "too little on personnel management", "too much on naval gunfire technique", et cetera, both as to material under their particular cognizance and that under the cognizance of other agencies. Directives from the Commandant of the Marine Corps indicating needs for additional instruction in particular subjects, received since the last syllabus was prepared, are acted upon. These conferences set the stage for modifications in the volume of instruction presented by a particular section or school.

Sections and schools presenting instruction then develop the material under their cognizance on the basis of what they believe ought

to be taught, by period of instruction. Concepts of these periods of instruction are presented to the director of a school for determination of adequacy and academic level. If more than the previous year's allocation of instructional hours is needed, the director must be so convinced. The director and his staff after studying the concepts of all sections and schools, may even direct a reduction in instructional hours by a section or school that may even have requested an increase. The process is not simple by any means; it is a complex process of "give and take". In the final analysis, however, the completed syllabus represents a director's concept of what should be taught in his school - it is from his frame of reference or perspective of what instruction is necessary to fulfil the mission of his school.

The process of "slicing the cake" - dividing the cake of hours available for instruction to give each academic special staff section or school a fair share - subjective as it is[1], is markedly affected by vested interests. In the case of Marine Corps Schools, which, incidentally, is not peculiar among service schools in this respect[2], vested interests stem not only from a normal interest in one's own field of specialization, but also from a traditional apathy towards military

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1. LtCol. C. S. Phillips, "The Cake and the Slice", Marine Corps Gazette, Vol. 34 (Jan., 1950), pp. 20-25.

2. Col. J. F. Collins, "The Command and General Staff College Presents Personnel Administration", Military Review, Vol. XXIX (Mar., 1950), p. 57.

matters of an administrative nature[1]. This apathy is readily apparent in the scope and approach to administrative matter, as reflected in the several curricula. In the case of personnel matter, as an example, only those aspects of a technical nature are presented. Personnel matter is presented from the standpoint of paper-work incident to routine personnel administration, or combat functions under the cognizance of the personnel staff section, such as handling of prisoners of war, military government, burial and graves registration, et cetera. Even in integrated problems, i. e., where administrative and operational matters are functionally combined, the approach to the personnel element is of a non-humanistic nature - men are "things". These problems, then, as set up, are inanimate processes - details of military tactics and techniques. One might infer that the emotional and social content of war was non-existent.

After the completed syllabi and schedules of instruction are approved, and at varying intervals before being presented, the detailed outline of a period of instruction is prepared, usually by the instructor(s) who will present it in the classroom. In the preparation of the outline, the instructor is guided by the concepts of the several periods of instruction which served as the basis for the synthesis of the syllabi and the schedules of instruction. (The academic organization of Marine Corps Schools is functional; i. e., an academic special staff section will, in general, present material related to the field

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1. Military matters fall under two general classifications, viz., "administration" and "operations".

under normal staff cognizance of the section, in all component schools. Consequently, an instructor may be concerned with more than one syllabus and schedule of instruction. However, in certain cases the staff of a component school will instruct in subject matter normally under the cognizance of a particular section.)

Study and Application of Educational Theory

Marine Corps Schools recognize the fact that mastery of subject matter is no guarantee of expertness in pedagogy. Consequently, all officers assigned to duties in the academic organization, and who will be expected to instruct, are assigned initially to a two weeks course of instruction in the Instructor's Orientation Course. This Course embodies the extent to which educational theory is studied in the Schools, and application of educational theory in the Schools is somewhat standardized on the Course's curriculum. It currently includes three hours of lecture in educational psychology, eleven hours in method of instruction, and the remainder of the time spent on practice presentations. As might be expected, those completing the Course excel in platform technique. They understand the importance of direct experience for effectiveness of learning in relation to symbolic experiences - but only as applied to method of instruction. There is little if any transfer, as a result of this training, of fundamental learning concepts to other areas of the educational program, such as curriculum development, where they are equally applicable.

CHAPTER V

THE EVALUATION

Basic Considerations

That the Marine Corps is a dynamic society can hardly be questioned, either when viewed as an isolated institution, as a part of the national military establishment, or as a part of the American social order. In the last three years, the Marine Corps has obtained a new personnel system, a new supply system, and several new administrative systems; it has new weapons and a new organization among its field forces; it is developing new tactics for amphibious operations in light of the atomic bomb; its administration is subject to promptings from more intimate inter-service relationships and a newly-created Department of Defense; it is becoming more sensitive to the mores of the American people; and so on. All fields of endeavor are changing, and will continue to change, at an unprecedented rate.

Are the characteristics of the officer educational system, then, in consonance with the dynamic society which maintains it? Is the goal of the system to produce an officer who is not only proficient in the customary experiences of service life, but who is also trained to contribute to the progress of the Marine Corps? Is cognizance taken of the fact that: "Man is the fundamental instrument of war; other instruments may change but he remains relatively constant. Unless his behavior and elemental attributes are understood, gross

mistakes will be made in planning operations and troop leading."[1]? Is the officer corps recognized as the principal source of change, and is it recognized that direction is given to such change by an attempt to realize democratic values in individual and group behavior?

The foregoing questions cannot all be answered entirely in the affirmative. Fundamentally, there appears to be no general recognition of the ramifications of change. This condition probably has its roots in military traditionalism. This traditionalism is reflected in such criteria of officer behavior as "do what you're told, not what you think", "keep your mouth shut, and eyes and ears open", "keep your finger on your number", et cetera, and in the peace-time practice of "fighting the 'next war' in terms of the last one"[2]. The result is that too many officers are addicted to inertia in the origination of constructive ideas. True, in certain areas there has been initiative and foresight displayed, as in the case of the Marine Corps developing the techniques of amphibious operations between the World Wars, but it may be attributed principally to the efforts of a few prophets in a few areas. As Bush[3] states, "there were knots of able and vigorous officers who forged ahead . . . . in spite of solid brass and hazards to careers".

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1. FM 100-5, Field Service Regulations, Operations, p. 27, Washington, D. C.: Government Printing Office, 1944.

2. Any reader interested in extensive readings in this matter should refer to Col. J. I. Greene, The Infantry Journal Reader, Parts I and VIII, New York: Doubleday, Doran & Co., Inc., 1943.

3. Vannevar Bush, Modern Arms and Free Men, p. 11. New York: Simon and Schuster, 1949.

The general lethargy which has prevailed within the military services, in relation to the outside world, has greatly diminished since World War II. To an extent never heretofore practiced or envisaged, since the War, the services have demonstrated an active recognition of its dynamic status, as evidenced by such facts as the extensive applied research projects within the national military establishment, the large numbers of service personnel attending civilian institutions, et cetera. This does not, however, connote a general recognition by the officer corps, as a group, of the effects of change, or, and what is most important, their individual roles in a dynamic society. This last remark is evidenced in the conception of the aim of the officer educational system in the Marine Corps. If cognizance had been taken of the fact that a purpose of an educational system is to improve the society which maintains it, as well as to perpetuate the heritage of the society, the result would be to have "prophets" as the outcomes of the system. In a society as dynamic as the Marine Corps it should be a paramount responsibility of each officer to contribute to the improvement of such methods, systems, and points of view as his assignments, aptitudes, and interests provide for, throughout his career. His basic attitude should be critical; i. e., he should examine his day-to-day activities, and his profession in general, from the point of view of "is this the best way of doing this? - can it be improved upon?". As well as training a contributing officer, the system would train superiors who would open-mindedly receive and consider constructive criticism. Thus, ineffi-

cient and time-worn practices, which exist in their present form only because "we have always done them that way", or "there is no reason for it, it's just our policy", would be eliminated, and, where necessary, sound, up-to-date, and progressive methods, systems, and points of view realized.

It cannot be expected that contributing officers will be the outcomes of an educational system that fosters only mastery of the status quo, and particularly the techniques thereof. The status quo should be presented as a medium to be critically examined and evaluated, as well as to be mastered. A knowledge of "what ought to be", as well as "what is", then, is the desired and desirable goal. Over-emphasis on technique tends to destroy expression, originality, and initiative.

Recognition of change leads to the consideration of the cause of it in military situations. The military services, as well as business and other American institutions until their awakening in recent years, lived in an objective world sharply disassociated from human purpose and value. During various periods, these institutions have discovered that the locus of their major problems lies within human affairs. A moments reflection on the part of any individual with insight and a clear perspective of events in the last war cannot deny that the major problem that remained unsolved was the problem of human relations. The Doolittle Board[1], and studies by Stouffer[2], Marshall[3],

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1. A board of general officers, MajGen. James Doolittle, senior member, convened by the War Department in 1946. It established

Cooke[4], and others, have made apparent the significance and general lack of understanding of the problem. A study made of the reasons why enlisted personnel of the Marine Corps failed to reenlist revealed that one of the principal reasons was faulty human relations - the problem still exists[5].

Admission of the importance of human relations must modify one's concept of the nature of military science and its role in military affairs. The study of military science cannot thereafter be regarded as an objective description of tactics, techniques, et cetera. Underneath all these concepts lies the basic reality of persons engaged in military activities and always related to each other in various ways. However, the importance of the resulting problem lies in the quality of this relatedness. Democratic values serve here as a criteria for action.

At this point, many readers will say that democratic values cannot be achieved in a military organization. Nothing is farther from the truth. It must be remembered that essentially democracy, and democratic values, implies a recognition of an individual as a

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the Army and Air Force's post-war personnel policy.

2. S. A. Stouffer et al, Studies in Social Psychology in World War II, Vols I & II, Princeton: Princeton University Press, 1949.

3. Col. S. L. A. Marshall, Men Against Fire. New York: Wm. Morrow & Co., 1947.

4. BrigGen. E. D. Cooke, All but Me and Thee. Washington: Infantry Journal Press, 1946.

5. Procedures Analysis Office, Headquarters, U. S. Marine Corps, Project No. P-3, Reenlistment Plans of Enlisted Personnel, Oct. 1949.

person-- not a thing. It is true that certain aspects of political democracy, such as the free choice of representatives and leaders, cannot be condoned in a military society, but other aspects, such as promptly and thoroughly following orders when given by constituted democratic authority, is the basis for positive military discipline. Social democracy is the basis for the principles underlying the career management systems being developed in the military services since the last war. Each of these systems is designed to assure the most efficient utilization of every man's abilities, to provide opportunities for each man to attain the highest proficiency consistent with his capacity, and to provide every reasonable aid to improve his welfare.

The foregoing evaluation of the basic considerations in curriculum development indicates that the curricula of an officer educational system in the Marine Corps can take its cues concerning such considerations from a curriculum properly designed for a civilian educational system. The criteria presented in Chapter II are valid, then, for application to the curricula under consideration.

Educational Principles

The absence of stated educational principles, to serve as criteria at points of issue, appears to be the basis for the bulk of the criticism of the current procedure of curriculum development. Since the nature of applicable educational principles was covered in Chapter II, it is felt that the effects of their not being specifically stated

and used will be more meaningful when treated in their applied aspects, which are discussed in this Chapter.

Aims and Objectives

As evaluated against the criteria presented in Chapter II, the aim of the officer educational system is, of itself, satisfactorily stated, even though logically determined. Those aspects of the basic considerations and educational principles relating to the pragmatic approach, a dynamic society, a moral code, a social orientation, and a contributing outcome may be "read into" the statement. But such implications have not been, and probably will not be, realized in practice, and when one reflects upon the predominant service point of view, the reason is obvious. Therefore, for realization of the true aim, properly construed, the currently implicit factors should be explicitly stated.

To ensure that the aim is being realized, the sum effect of the curricula of all schools to which officers are assigned must be analyzed regularly. Any slack in the full realization of the aim must be assigned to a school in the educational system. In several ways, the aim is not being fully realized, at this time. As an example, one of the most difficult missions for the Marine Corps to fulfil, and certainly that which will receive the most concentrated effort and unity of purpose of the entire Corps at any time, will be mobilization to war-strength, should the need arise. There is no instruction in mobilization in any curricula.

The academic objectives of Marine Corps Schools should attain that proportion of the aim of the officer educational system not realized through other schools in the Marine Corps, other service schools, and civilian institutions. An analysis of the curricula of these latter schools reveals that, from a Marine Corps point of view, they are of a specialist nature, and, when considered in light of the fact that specialization primarily results from on-the-job training, the training of specialists need not be of concern to Marine Corps Schools. Under such conditions, instruction in staff at Marine Corps Schools should not be from the point of view of staff specialization, but from the point of view of staff as it contributes to command; i.e., from the point of view of that amount of knowledge of a particular staff function that a commander should have to function effectively. To this extent instruction in a staff specialty should be limited to its essential principles, comparative systems, their capabilities and limitations, how to evaluate their effectiveness, where to look for errors, practical means found to minimize or eliminate these errors, et cetera, and not a high degree of proficiency in technique. This approach also meets the requirement for a curriculum that fosters critical thinking and the training of a contributing outcome.

Appendix B, containing the current academic objectives of Marine Corps Schools, as was stated previously, was based upon the then effective curricula. Since the curricula were limited to operations in the field of fleet marine forces, certain missions of the Marine Corps were excluded from its scope. As an example, mobilization planning

should be a phase of Marine Corps Schools' curriculum. Mobilization of the Marine Corps will not be taught in non-Marine Corps schools, and its study cuts across specialist fields.

The statement, per se, of objectives relating to Marine Corps Schools' curricula may be criticized from the standpoint that they are not stated from the point of view of student achievement, they are not organized into an overall meaningful pattern, and they are not specific enough to define with exactness the scope of the subdivisions of the curricula.

Analytical Methods

As pointed out in Chapter IV, the curriculum content is largely the concept of what the school director decides it should be, and in reaching such a decision he is influenced by his own experience and bias, by the traditional subject matter taught in the course, and by the facility of the technical "experts", the academic special staff sections, to interest him in the allocation of time to their particular fields. This procedure is strictly subjective.

The effect of such subjective determination of curriculum content is to not only omit some of "what" is done, but to introduce material into the curriculum irrelevant to "how" it is (or should be) done - from the role of the doer. With specific reference to The Basic School, well over 100 hours of instruction are devoted to the nomenclature, disassembly, assembly, functioning, stoppages, care and cleaning, et cetera, of all types of basic weapons. Under what

conditions of use does an officer need to know this much detail about weapons? (If it is considered that he should know it, the question as to whether it can be learned more effectively or not on-the-job, and thus preclude it from the curriculum, will be considered in the following section.) It seems that an officer's use of the subject matter would be in terms of comparative capabilities and limitations, effectiveness against various type targets, technique of employment, control of fire, et cetera, from his role as a unit commander. What useful learning an officer derives from firing a weapon, as an example, when it is improbable that he will fire it in the regular performance of his duties, is unknown. A transfer of learning, which in reality is non-existent, must be presumed; or "use", where logically determined, is not determined from the standpoint of the officer performing his duties. In the field of basic weapons, as in any field, a contributing officer might well be trained through supplemental reading of evaluative references, such as Rifles and Machine Guns of the World Armies, by M. M. Johnson, Jr., or Weapons and Tactics by Tom Wintringham.

In The Basic School, again, many hours are spent in the study of basic tactics and techniques. Yet, the one most important need for training in this field from the point of view of the role of the junior officer is how to set up and conduct small unit field problems - this is omitted. The student officer stands a number of inspections, but he is not taught how to inspect. He is taught to instruct, but he is not taught how to supervise instruction. Et cetera.

There is little doubt but that an objective analysis of service

activities would correct this condition, and incidentally reveal the need for, and result in, a social foundation to the curricula.

Scope and Sequence

The absence of a systematic procedure for determining the scope of Marine Corps Schools' curricula from objectively derived material has readily discernible effects. One of these effects relates to interest as a factor in effective learning. The Basic School curriculum is developed from the arbitrary point of view that the newly commissioned officer has had no prior military training. Consequently, many hours of instruction in drills and ceremonies, naval ordnance and gunnery, service afloat, customs and courtesies, et cetera, are repetition of matter already mastered, at least from the point of view of academic learning. Another effect is that material that definitely could be better learned on the job, particularly techniques having no bearing on subsequent school problems, appear throughout the curricula. In contrast, much material that is both abstract and high in frequency of occurrence, such as individual behavior causes, group dynamics, morale sustaining and boredom reducing factors, is omitted.

Since the emphasis in training is quite properly from the point of view of proficiency in duties in field forces, service in a fleet marine force organization should be used as the major frame of reference of all activities studied. Only when a particular activity cannot be reconciled with a fleet marine force setting should it be studied in another.

The principal criticism concerning sequence of content is with relation to the treatment of background content. Even though it may be structurally organized, there is no basis for it to be scattered throughout a curriculum as it is now. (This will be considered in more detail under organization of units.) There also appears to be a great deal of repetition of background material between the various school levels. This no doubt stems from the fact that during the last war officers were precluded from school experiences appropriate to their rank, and the desire is to place them on common footing. However, rather than to repeat background subjects, as personnel procedures, naval justice, et cetera, it appears to be better to require those that have not had it to take it by correspondence prior to coming to a school or by self-study outside class.

Organization of Courses of Study

One of the results of World War II has been to cause the average officer of a particular rank to have an abnormal amount of specialized training and experience. Therefore, for the most effective learning, there should be a minimum of structural organization in the curriculum. The nature of background content, such as principles of war, tactical principles, principles of organization and management, basic staff techniques, causes of human behavior, et cetera, makes it practically mandatory that it be organized structurally. Marine Corps Schools' curricula are intended to produce functional learning - the ability to employ skills, knowledges, and understandings in real life

situations. However, neither the subcourses (courses of study), nor the overall curriculum, is organized functionally. Even though the method of instruction and the period of instruction are usually functional in their approach, they alone are not sufficient for functional learning.

Some basis for functional organization of the curriculum must be selected. It should be broad enough to contain learning experiences representative of the needs of the students. A feasible basis of organization for the Amphibious Warfare School, as an example, would be with respect to the logical phases of the conduct of war - mobilization, individual training and equipping, activation of units, and from a unit (as a division) standpoint - training and equipping, a non-tactical movement (land, sea, and air), encampment, operational planning, tactical movement (land, sea, and air), the conduct of an amphibious operation, base defense, rehabilitation, special operations, et cetera. The study of the doctrine, principles, policy, and technique for the employment of aviation, artillery, armor, et cetera, and the conduct of various functions, will arise from the learning experiences involving, as an example, operational planning, the conduct of an amphibious operation, et cetera.

Organization of Units

The principal criticism that can be directed against the organization of learning experiences is that the periods of instruction (units) are not, in general, broad enough to encompass enough related

content. The broader the scope of a particular learning experience, the more effective the learning, since it provides for a continuity of learning over a long period of time. Actually, what are whole units are interspersed among other decentralized whole units throughout the curricula. For example, in The Basic School, the study of naval justice, consisting of 26 hours of instruction, is spread over a period of eleven weeks. At no time are more than two hours of instruction consecutive. As long as a week transpires between successive periods of instruction.

It is difficult to analyze the real reason for this instructional organization, which is traditional. It is possibly the result of logically organized subject matter, or an attempt to relieve satiation. However, in relation to the latter suggestion, the intervals between successive periods of instruction in a particular subject are practically all lecture periods covering subject matter of a similar nature, and it is the passive learning that is largely responsible for satiation, even when the subject matter is changed. Active learning by means of laboratory work, individual and group projects, or problems would minimize satiation, and at the same time provide for more effective learning. This is generally realized in the integrated problems of the Amphibious Warfare School, several of which are in uninterrupted session five days or longer. Thus, it appears that there is no reason why study and instruction in "the Marine Corps personnel system", as an example, should be interrupted, whereas "the regiment in the attack" is not, as long as an effective learning sit-

uation is maintained.

An incidental aspect of content of learning experiences is the justification of the average cost of instruction per hour with respect to some of the non-integrated material. The content of certain of the one-hour periods of instruction is so elementary, and involve such simple concepts, that they could be mimeographed, distributed to the students and assimilated probably in ten to fifteen minutes of outside reading. The substitution of reading for listening would result in more effective learning. It is also difficult to justify expenditures when the result is learning certain forms, the numbers and names of the paragraphs of an estimate or an order, the characteristics of a condition, or the like. Traditionally, such items have been given undue significance. More important than learning such details, which the students should be able to learn on their own, is learning when such items are needed, where to locate them quickly when needed, and how to use them.

Administrative Considerations

The functional organization of Marine Corps Schools is appropriate for the administration of a functional curriculum. However, not in all cases is content relating to a particular function present by the appropriate functional expert, an academic special staff section. Instruction in leadership, as an example, is conducted by the staff of each of the component schools, and not by the Administrative (Personnel) Section, which, as a normal staff matter, has that subject

under its cognizance. The same situation holds in the case of instruction in staff principles. The undesirable effect of this condition is the lack of uniformity in concepts pertaining to such subjects among the several component schools, and the expert knowledge of instructors with special training in the subject not utilized. The statement of the specific missions of the Administrative Section, which precludes certain normal staff functions, may account for this condition. The Combined Arms Section, however, does not conduct all instruction in all schools in material under its normal cognizance, even though nothing in its specific mission precludes it.

The staff of each component school, in effect, serves as a curriculum committee, under the chairmanship of the school director. However, if curricula were developed in accordance with the criteria set forth in Chapter II, the school staff would have no time to perform more important (from their standpoint) supervisory functions. Therefore, some agency besides the several school staffs should perform the technical process of curriculum development.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Summary

1. The Marine Corps is a dynamic society. However, it does not recognize its status as such in determining the purpose of its officer educational system. The result is that the graduates of the schools of the system are generally unaware of their individual roles in a dynamic society, and they are not well prepared to perform them.

2. Recognition of man as a human being and the source of major problems is non-existent. Well-laid materialistic plans are held to be the key to success.

3. Curriculum development in the officer educational system is not guided by a code of educational principles. Consequently, inconsistencies, such as those relating to the learning process and instructional organization, occur.

4. The statement of the purpose (aim) of the officer educational system is an over-simplification in the absence of clearly stated criteria for its concept.

5. The academic objectives of Marine Corps Schools do not adequately encompass that proportion of the aim of the officer educational system that they should. The specific objectives of the subdivisions of curricula are not stated in accordance with principles based upon effective learning and good curriculum construction.

6. The content of Marine Corps Schools' curricula is deter-

mined subjectively rather than by the application of systematic analytical procedures. The result is that subject matter that should be contained in the curricula is omitted, subject matter contained in the curricula is not taught from the point of view of its use in real life situations, and subject matter relates only to the status quo.

7. Effective learning in Marine Corps Schools is impeded by the failure to organize the subcourses (courses of study) and the overall curricula functionally.

8. Integration of subject matter in Marine Corps Schools' curricula is not achieved to the extent that would appear to be desired. Discrete elements, at the time presented, frequently appear to be without reference to the settings in which they belong.

9. The interpretation of the aim of the officer educational system and the academic objectives of Marine Corps Schools has been strongly influenced by professional bias. This is an outgrowth of the "tactics and techniques-is-all" philosophy of the school staffs, which are traditionally "operations-centered".

Conclusions

1. The position of preeminence now enjoyed by Marine Corps Schools in the field of military education is not the result of random growth, but is the result of a studious and concentrated effort exerted by many individuals through the years for continued improvement and ultimate perfection in accomplishing its assigned mission. These individuals have had little or no educational training, in its

broadest sense. Consequently, progress has resulted from logically determined steps and a subjective evaluation of them, rather than by evaluating the program against systematically and scientifically developed criteria available in the field of education. Nevertheless, the overall quality of the program compares most favorably with any that one finds on higher levels among civilian institutions. Once cognizance is taken of these criteria, which the staff of the Schools is apparently unaware of at this time, the Schools can be without peer.

2. A plan for improving the procedure of curriculum development in Marine Corps Schools should entail the following factors:

a. The Commandant of the Marine Corps, taking cognizance of the dynamic status of the Marine Corps, and the officer corps as the effecter of progress, should restate the purpose of the officer educational system so as to denote clearly the role of democratic principles in guiding such change, and the contributing role of the officer corps, in addition to its present elements.

b. The Commandant of the Marine Corps, taking cognizance of the philosophical, sociological, and psychological bases of an educational system, should promulgate a code of educational principles. These principles should provide for curricula content based upon the criterion of use, content based upon a social (human element) frame of reference, and content organization conducive to more effective learning.

c. The Commandant of the Marine Corps should restate the academic objectives of Marine Corps Schools so as to provide for attain-

ment of that proportion of the purpose of the officer educational system not within the cognizance of other schools. The objectives should provide for their realization from the point of view of the role of a commander at the various levels of command studied; staff functioning should be approached from the point of view of its contribution to command. This should eliminate undue emphasis on popular missions and the functions of particular staff sections. It furnishes an ultimate criterion for inclusion of material in the curriculum, as well as to properly meet the requirements of the students.

d. Marine Corps Schools' curricula, stemming from the above factors, would be enhanced by a realization of the following:

1). The medium for accomplishing academic objectives should be a series of learning experiences. The sum total of these learning experiences should make up the curriculum. The extent to which the curriculum is sound determines the extent to which the objectives will be realized. Soundness of the curriculum depends upon the representativeness of its content, the way the content is arranged both as to sequence and interrelationships, and the type of learning it promotes.

2). Curriculum content should be based upon a job analysis of command functioning, and of the personnel, intelligence, operations, and logistics procedures that are essential to make such command functioning effective. Personal opinion should be minimized to the greatest extent possible throughout the process, thus minimizing bias.

3). For more effective learning, the curriculum in its final form, except for a minimum of background content, should be completely functional in nature. The integrating factor, common to all fields of military affairs when considered from the role of the commander, should be the human element.

4). For more effective learning, the shotgun pattern of treatment of background content should be eliminated. Subject matter under the cognizance of a particular staff section should be treated in a complete sequence.

5). For more effective learning, the syllabi should be prepared primarily from the point of view of use to the student, rather than as a guide for the Schools' staff.

6). Classroom instruction should eliminate subject matter readily understood by self-study of available references. These should be made outside reading requirements, mastery of which should be determined by periodic examination. This should permit the devotion of more classroom time to functional learning, particularly in the area of those missions of the Marine Corps not currently covered.

e. There should be a permanent, full-time curriculum committee established at Marine Corps Schools, which will work with the representatives of the Commandant of the Marine Corps in the preparation of the statement of the purpose of the officer educational system and the academic objectives of Marine Corps Schools, and with the appropriate instructors in the development of the periods of instruction, the remainder of the procedure of curriculum development being the sole re-

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APPENDIX

APPENDIX A

MISSIONS OF COMPONENT SCHOOLS AND ACADEMIC SPECIAL STAFF SECTIONS[1]

Missions of component schools[2]:

"Amphibious Warfare School, Senior Course - To train field officers for command and staff duties in appropriate echelons of command within the Fleet Marine Forces, with primary emphasis on advanced instruction in the doctrines and techniques of amphibious warfare.

"Amphibious Warfare School, Junior Course - To train majors and captains for command and staff duties within regimental combat teams or air groups of the Fleet Marine Forces, with particular emphasis placed upon the coordinate employment of air, naval, and ground elements in amphibious operations.

"Basic School - To train recently commissioned officers in the duties and responsibilities of Marine officers ashore and afloat, with emphasis on the duties of the platoon commander."

Missions of academic special staff sections:

"Basic missions - Certain basic missions are common to all academic special staff sections. These basic missions, as set forth below, will be carried out by academic special staff sections within the scope of the specific mission assigned.

"(1) To prepare and present in the component schools such instruction as may be approved by the Deputy Commandant, Marine Corps Schools, within the scope of the specific mission of the section. The preparation and presentation of instruction will be based upon and will accord with the concept of instruction prepared by the school director for each period of instruction, and will include:

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1. General Regulations for the Academic Organization of the Marine Corps Schools, pp. 8-9, Quantico, Va.: Marine Corps Schools, 1949.

2. Only the schools within the scope of this study are indicated.

"(a) Recommendations to the directing staff of the school regarding the preparation of those parts of the syllabus and schedule of instruction relating to the specialties of the section.

"(b) Preparation and submission to the school of outlines and manuscripts pertinent to instruction related to the specialties of the section.

* * * *

"Specific missions -

"(1) Administration Section - To carry out the basic missions prescribed insofar as those missions are related to the functions of the personnel section (G-1) (S-1), in all echelons of command; legal aspects of domestic disturbances; rules of land warfare; military government and/or civil affairs as applied to a military force; law and policies governing the trial and punishment of persons in the naval service; and personnel administration procedures employed in an administrative headquarters.

* * * *

APPENDIX B

ACADEMIC OBJECTIVES OF MARINE CORPS SCHOOLS[1]

"The Marine Corps Schools has been assigned the following objectives by Commandant of the Marine Corps' letter, serial MC-967263, dated 2 January, 1948:

"1. Reference (a) (National Security Act of 1947) charges the Marine Corps with responsibility for providing "fleet marine forces of combined arms, together with supporting air components, for service with the fleet in the seizure or defense of advanced naval bases and for the conduct of such land operations as may be essential to the prosecution of a naval campaign,' and for developing, 'in coordination with the Army and the Air Force, those phases of amphibious operations which pertain to the tactics, technique, and equipment employed by the landing forces.'

"2. In furtherance of the discharge of these over-all Marine Corps responsibilities, it shall be the mission of the Marine Corps Schools:

"(a) To train officers in the tactics and techniques of warfare, with particular emphasis on amphibious operations, in order to provide competent commanders and staff officers for the field forces of the Marine Corps; and,

"(b) Continuously to study and review current tactics, technique, and equipment employed by the landing forces, making recommendations to this Headquarters[2] for their improvement and development.

"3. In accordance with the missions . . . . ., the Marine Corps Schools shall provide the schools required to accomplish the following tasks:

"(a) To train newly commissioned lieutenants in those subjects pertaining to the duties and responsibilities of a marine officer, ashore or afloat, and of an infantry platoon commander in particular.

"(b) To train majors and captains for command and staff

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1. General Regulations for the Academic Organization of the Marine Corps Schools, pp. 1-2. Quantico, Va.: Marine Corps Schools, 1949.

2. Headquarters, U. S. Marine Corps.

duties within a regimental combat team or an air group of the Fleet Marine Force with particular emphasis upon the coordinate employment of air, naval, and ground elements in amphibious operations.

"(c) To train field officers[1] for command and staff duties in appropriate echelons of command within the Fleet Marine Force with primary emphasis on advanced instruction in the doctrines and technique of amphibious warfare.

* * * *

1. Lieutenant colonels and majors.

APPENDIX C

THE FORMAT OF A TYPICAL SYLLABUS

SUBCOURSE 14

LOGISTICS

To instruct in the basic logistical principles which affect military operations, including logistical organization, supply, evacuation, salvage, transportation, and medical service.

a. Principles and Organization			18 hours
LOG-200	L,C	Principles of Logistics	(1)
LOG-207	L,C	The 4-Section in Combat	(1)
LOG-202	L,A	Tables of Allowances; Classes of Supply	(2)
LOG-203	L,D	Marine Corps Supply System	(1)
LOG-205	L,C	Organization & Functions of the Service Command	(1)
LOG-204	L,C	Battalion, Regiment, & Division Service Elements	(1)
LOG-208	A	Logistical Computations	(2)
LOG-209	L,C	Procurement & Distribution of Supplies	(1)
LOG-210	L,C	Procurement & Distribution of Supplies	(1)
LOG-211	A	Regimental Supply in the Attack	(2)
LOG-270	A	Regimental Supply in the Defense	(2)
AVN-541	L,C	Introduction to Aviation Logistics	(1)
AVN-542	L,C	Aviation Logistical Organization	(1)
AVN-543	L	Logistic Support of Early Aviation Operations Ashore	(1)
b. Transportation			15 hours
LOG-230	L,A	Rail Movements	(1)
LOG-231	L,C	Motor Transport Vehicles	(1)
LOG-232	L,C	Motor Transport Maintenance	(2)
LOG-233	L,C	Motor Transport Organization & Personnel	(1)
LOG-234	L,C	Selection & Training of Drivers	(1)
LOG-235	L,C	Operations & Tactical Employment of Motor Transport	(1)
LOG-237	L,D,A	Motor Transport, Command Responsibilities	(3)
LOG-250	L,C	Air Movement of Ground Units	(2)
LOG-251	L,C	Air Delivery of Supplies	(1)
LOG-252	C	Loading of Cargo Aircraft	(2)
c. Medical Service			3 hours
LOG-240	L	Medical Service in the Marine Division	(1)
LOG-241	L	Sanitation in Combat & in Base Camps	(1)
LOG-242	L	Venereal Disease Control—Malarial Control	(1)
PRIMARY			36 hours
d. Additional Logistics Instruction Amphibious Operations Subcourse			27 hours
LOG-300	L,C	Embarkation Principles	(1)
LOG-301	L,C	The Embarkation Team	(3)

APPENDIX D

THE FORMAT OF A TYPICAL SCHEDULE

THIRD WEEK
(19-23 Sept)

MONDAY			
0800-0900	CAS (OPN)-1184	X	PLANS, ORDERS, ANNEXES, Combat Orders
0900-1000	COS-701	L	GENERAL PRINCIPLES, Signal Communications, General
1000-1200	CAS (OPN)-1020	L,D	PRINCIPLES, Principles & Phases of Offensive Combat
1300-1600	B-354	TE,D	BASIC INFANTRY WEAPONS; Troop Leading Steps of the 60mm Mortar Section (Offense)
TUESDAY			
0800-0900	B-259	L	PLATOON IN THE ATTACK; Platoon in the Offense
0900-1000	B-322	L	BASIC INFANTRY WEAPONS, MG Missions and Methods of Employment (Offense)
1000-1200			ADM, Reserved for Director
1300-1600	CAS (OPN)-1194	TE	PLANS, ORDERS, ANNEXES, Preparation of an Attack Order
WEDNESDAY			
0800-0900	B-116	C	SECURITY, Security on the March
0900-1100	INT-729	C,A	MAP AND AERIAL PHOTO READING, Plotting Aerial Photos on a Map
1100-1200	CAS (OPN)-1197	D	STUDENT ORIENTATION, Solution of Map Problems
1300-1500	CAS (GS)-696	ME	Terrain Appreciation
THURSDAY			
0800-1000	CAS (ARTY)-51	L,C	FIELD ARTILLERY, General
1000-1100	COS-707	L,A	TECHNIQUES, Message Drafting
1100-1200	B-343	L	BASIC INFANTRY WEAPONS, Missions, Tactical Employment; Troops Leading Steps of the 60mm Mortar Section (Defense)
1300-1600	INT-726	TE	MAP & AERIAL PHOTO READING, Location
FRIDAY			
0800-1100	B-324	L	BASIC INFANTRY WEAPONS, Methods of Employment, Troop Leading Steps of MG's (Offense)
1100-1200	CAS (ARTY)-52	L,C	FIELD ARTILLERY, Liaison
1300-1600	INT-730	TE	MAP & AERIAL PHOTO READING, Practical Routes

APPENDIX E

MISSIONS OF THE MARINE CORPS[1]

"1. The Marine Corps, within the Department of the Navy, shall include land combat and service forces and such aviation as may be organic thereto.

"2. The Marine Corps shall be organized, trained and equipped to perform the following missions (National Security Act of 1947, and Statement of the "Functions of the Armed Forces and the Joint Chiefs of Staff" issued by the Secretary of Defense on 21 April 48 (Annex to JCS 1478/23)):

"a. To provide fleet marine forces of combined arms, together with supporting air components, for service with the U. S. Fleet in the seizure and defense of advanced naval bases and for the conduct of such land operations as may be essential to the prosecution of a naval campaign.

"b. To provide detachments and organizations for service on armed vessels of the Navy, and security detachments for the protection of naval property at naval stations and bases.

"c. To develop, in coordination with the Army, the Navy, and the Air Force, the tactics, technique, and equipment employed by landing forces in amphibious operations. The Marine Corps shall have primary interest in the development of those landing force tactics, technique, and equipment which are of common interest to the Army and the Marine Corps.

"d. To train and equip, as required, marine forces for airborne operations, in coordination with the Army, the Navy, and the Air Force in accordance with policies and doctrines of the Joint Chiefs of Staff.

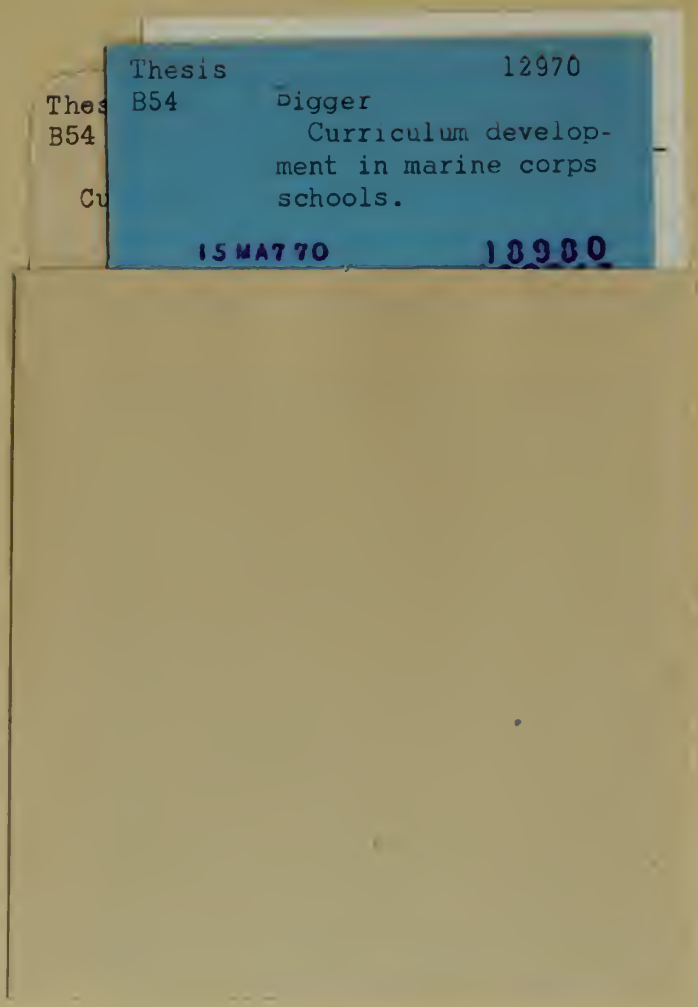
"e. To develop, in coordination with the Army, the Navy, and the Air Force, doctrines, procedures, and equipment of interest to the Marine Corps for airborne operations and which are not provided for by the Army.

"f. To be prepared, in accordance with integrated joint mobilization plans, for the expansion of the peacetime components to meet the needs of war."

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1. Marine Corps Manual, Vol. I, pp. 2-3 - 2-4. Washington, D. C.: United States Government Printing Office, 1949.

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